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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,539	05/13/2002	Derek Edward Roberts	MARSP0125US	8840
43076	7590	10/26/2005		
MARK D. SARALINO (GENERAL) RENNER, OTTO, BOISSELLE & SKLAR, LLP 1621 EUCLID AVENUE, NINETEENTH FLOOR CLEVELAND, OH 44115-2191			EXAMINER SWEARINGEN, JEFFREY R	
			ART UNIT	PAPER NUMBER
			2145	

DATE MAILED: 10/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/980,539

Applicant(s)

ROBERTS ET AL.

Examiners

Jeffrey R. Swearingen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-139 is/are pending in the application.
- 4a) Of the above claim(s) 30-131 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 and 132 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Election/Restrictions

1. Claims 30-131 and 133-139 were withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 8/1/2005.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1, 27-29, and 132 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. In regard to claims 1, 27-29, and 132. Applicant has used the phrase *comparing the generated code with each of at least the associated addresses to detect the address-based event*. The Examiner is unclear what is being compared and what could possibly be compared based on the wording in this phrase.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
6. Claim 27 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 27 is directed towards a computer program which is not statutorily embodied upon a tangible storage medium. Claims 28 and 29, which are both dependent upon claim 27, are both statutory embodiments of claim 27.

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Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-5, 7, 9, 11-17, 21-24, 27-29, and 132 are rejected under 35 U.S.C. 102(b) as being anticipated by Burkhardt, Jr. et al. (U.S. Patent No. 4,866,664).

9. In regard to claims 1, 27-29, and 132, Burkhardt, Jr. disclosed *generating and storing at least one code whose purpose is to associate an action with an address-based event in an information stream, which comprises data and associated memory addresses, on an information pathway within the computer* (column 7, lines 16-27); *comparing the generated code with each of at least the associated addresses to detect the address-based event* (column 8, lines 30-37); and *performing the associated action in response to detection of the address-based event*. (column 8, lines 30-44).

10. In regard to claim 2, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. further disclosed *comparing the at least one generated code only with each of the associated addresses*. See the address decoder in column 8, lines 30-37.

11. In regard to claim 3, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. further disclosed *comparing the at least one generated code with each of the associated addresses and at least part of the data*. See the address decoder in column 8, lines 30-37.

12. In regard to claim 4, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. further disclosed *the associated addresses are processed before being compared with the at least one generated code*. See Burkhardt, Jr., column 8, lines 22-37.

13. In regard to claim 5, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. further disclosed *the data have inferred addresses*. I/O instructions are broadcast with address signals. See Burkhardt, Jr., column 8, lines 2-11.

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14. In regard to claim 7, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. further disclosed *the information pathway is a computer bus*. Burkhardt, Jr., column 7, lines 16-27.

15. In regard to claim 9, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. further disclosed *the information stream is from a network of computers*. Burkhardt, Jr., column 3, lines 14-34.

16. In regard to claim 11, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. further disclosed *the information stream is wholly within the computer*. Burkhardt, Jr. dealt with transmitting signals through a computer bus in column 8, lines 30-37, which is *wholly within the computer*.

17. In regard to claim 12, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. further disclosed *each associated address represents a memory location or range of locations at the end-point application*. Burkhardt, Jr. disclosed addresses being decoded by the address decoder that were directed to certain registers, or *memory locations*. Burkhardt, Jr., column 8, lines 26-30.

18. In regard to claims 13-14, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. further disclosed an embodiment which involved transmitting messages, or *step (a) is performed by at least one application of the computer, in which the at least one application includes the end-point application*. See columns 9-10.

19. In regard to claim 15, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. further disclosed *step (b) is performed by a content-addressable memory*. The device decoder and address decoder in column 7, lines 16-27 were a *content-addressable memory*.

20. In regard to claim 16, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. further disclosed *the associated action comprises a plurality of associated actions*. Burkhardt, Jr., column 8, lines 45-68, where sending a message synchronizing interrupt, generating an I/O write instruction, response from the address decoder, setting the interrupt data in the output register, placing the I/O instruction on the local bus, etc. were a *plurality of associated actions*.

21. In regard to claim 17, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. further disclosed *the associated action comprises raising an interrupt for the end-point application*. Burkhardt, Jr., column 8, lines 12-44.

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22. In regard to claim 21, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. further disclosed *writing a predetermined value to a predetermined memory location*. Burkhardt, Jr., column 8, lines 45-60.

23. In regard to claim 22, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. further disclosed *the associated action comprises deleting the at least one generated code*. This is shown in column 9, lines 8-15 which disclosed resetting a processor, or *deleting the at least one generated code*.

24. In regard to claim 23, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. further disclosed *modifying the at least one generated code*. Burkhardt, Jr., column 7, lines 16-66.

25. In regard to claim 24, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. further disclosed *generating and storing at least one further code*. Column 10, lines 29-41 described an embodiment of Burkhardt, Jr. where a process was copied and a response message was created (*generating and storing at least one further code*).

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

27. Claims 8, 10, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burkhardt, Jr. in view of Official Notice.

28. In regard to claim 8, Burkhardt, Jr. is applied as in claim 1. Column 3, lines 14-34 of Burkhardt, Jr. disclosed that Burkhardt, Jr. operated over a network. Official Notice is taken that a switching fabric was a well-known portion of many networks at the time of the invention. Therefore it would have been obvious to one of ordinary skill in the art to have incorporated a switch fabric into the information pathway of Burkhardt to have allowed for incorporation of the

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Burkhardt invention into more varied networks while gaining the speed and decreased latency benefits of the utilization of a switch on a network.

29. In regard to claim 10, Burkhardt, Jr. is applied as in claim 1. Column 3, lines 14-34 of Burkhardt, Jr. disclosed that Burkhardt, Jr. operated over a network. Official Notice is taken that networks commonly employed *a plurality of sources that are multiplexed* at the time of the invention. Therefore it would have been obvious to one of ordinary skill in the art to have incorporated a multiplexed network into the Burkhardt invention in order to have allowed more flexibility in implementing the Burkhardt invention with different types of legacy networks.

30. In regard to claim 18, Burkhardt, Jr. is applied as in claim 17. Burkhardt, Jr. failed to explicitly disclose the interrupt was raised only if the end-point application was not running. However, Official Notice is taken that one of ordinary skill in the art at the time of the invention would have prevented interrupts to a program if that program was not resident in memory in order to have saved processor resources and increased system efficiency. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Burkhardt to only raise interrupts if a program had been operational in the system.

31. In regard to claim 19, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. failed to explicitly disclose setting a bit in a bitmap. Burkhardt did disclose setting bits such as the NMI in column 6, lines 27-35. However, Official Notice is taken that one of ordinary skill in the art at the time of the invention would have been able to alter a bitmap with a single bit of data. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Burkhardt, Jr. with a bitmap.

32. In regard to claim 20, Burkhardt, Jr. is applied as in claim 1. Burkhardt, Jr. fails to disclose the use of an event counter. However, Official Notice is taken that recording the number of occurrences of an event was a well-known administrative function at the time of the invention. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have included an event counter with the Burkhardt, Jr. invention.

33. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burkhardt, Jr. in view of Yates, Jr. et al. (U.S. Patent No. 6,954,923).

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34. In regard to claim 25, Burkhardt is applied as in claim 1. Burkhardt failed to disclose the rescheduling of an application. Burkhardt did teach the management of instructions, which is analogous to Young. Young taught using instructions to allow task rescheduling to occur. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Burkhardt with the task rescheduling of Young in order to allow for greater efficiency of the processor.

35. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burkhardt, Jr. in view of Zargham et al. (U.S. Patent No. 6,470,398).

36. In regard to claim 26, Burkhardt is applied as in claim 1. Burkhardt failed to disclose waking up an application. However, Zargham in the analogous field of interprocess communication disclosed waking up processes when necessary responses for those processes appeared in the system. See Zargham, column 7, lines 1-9. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Burkhardt with the teachings of Zargham for the purpose of allowing processes to receive the proper data, which is known as shown in Zargham, column 1, lines 54-65.

37. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burkhardt, Jr. in view of Nichols et al. (U.S. Patent No. 4,977,582).

38. In regard to claim 6, Burkhardt is applied as in claim 5. Burkhardt failed to give support for data bursting. However, Nichols, in the same field of art of interprocess communication, disclosed the ability for data streams and bursts to be synchronized in a manner similar to Burkhardt. See Nichols, column 11, lines 11-33. Nichols, column 11, lines 41-56. Nichols, column 12, lines 38-50. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Burkhardt to support data bursts as shown in Nichols for the purpose of supporting high speed traffic and large quantities of traffic through a network. [Nichols, column 2, lines 1-47]

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Conclusion


39. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Schmidt et al.	U.S. Patent No. 6,907,473
Kley et al.	U.S. Patent No. 6,920,507
Rigaldies et al.	U.S. Patent No. 6,792,085
Berkeley et al.	U.S. Patent No. 3,701,972
McNamara	U.S. Patent No. 6,262,976
Kley et al.	U.S. Patent No. 5,862,346
Hijino	U.S. Patent No. 5,740,372
McBride et al.	U.S. Patent No. 6,757,698
Pope et al.	WO 2004/025477
Roberts et al.	EP 1 302 853 A2

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571) 272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on 571-272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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SIB A2145

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